tions done and the patient's course following steroid therapy makes other explanations unlikely.

Pericardial involvement is well documented in other vasculitides such as periarteritis nodosa, hypersensitivity vasculitis and the vasculitis associated with rheumatoid arthritis and systemic lupus erythematosus. The present finding in giant cell arteritis is somewhat reminiscent of rheumatoid arthritis, where *silent* pericardial effusions are seen on echocardiography in about 50 percent of patients.[3] They are usually clinically benign, but can assume significance in the form of tamponade or constriction.[4] Although previously unreported, the frequency with which pericardial effusion may be encountered in giant cell arteritis is really unknown. An echocardiogram is not usually included or indicated in the workup of this disorder. Whether asymptomatic pericardial effusions are a common accompaniment of giant cell arteritis remains to be explored.

HARINDER S. GAREWAL, MD, PhD
RICHARD F. UHLMANN, MD
ROBERT M. BENNETT, MD
University of Oregon Health Sciences Center
Portland

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Magnesium—It's About Time

TO THE EDITOR: The article "Nutritional Aspects of Magnesium Metabolism" by Dr. Edmund B. Flink, which appeared in the October issue, was most timely, and covered some of the important aspects of magnesium in human health and disease. The accompanying editorial by Dr. Jerry K. Aikawa equally stressed the importance of this vital element, and also pointed out the neglect of this essential element by our profession. His opening statement summed it up quite well: "Among cations of biological importance, magnesium is the forgotten member."

Both writers failed to mention that there is a lot of interest in magnesium in some parts of the world. Since 1970 there have been two international conferences dealing with magnesium and its importance in health and disease, and the third international conference is being sponsored in part by the American College of Nutrition, and will take place in Baden-Baden, West Germany, in August 1981.

It is interesting, and somewhat sad, that in the pages between Flink's article and Aikawa's editorial was a Medical Staff Conference from the University of California, San Francisco, on sudden death, and nowhere during the conference was there any mention of magnesium. Even though Dr. Iseri at another campus of the same university has written extensively about the use of magnesium in ventricular tachycardias and fibrillations, none of the participants of the conference seemed to be aware of this. All kinds of drugs, enzymatic poisons and invasive techniques were suggested, and the concluding remark stated the following: "Better ways of evaluating the electrical stability of the ventricles and controlled trials of drug intervention are needed." But none suggested a trial of the safest of all methods and that with the fewest side effects—that is, magnesium therapy.

It is not that this is some newly discovered miracle cure. As long ago as July 1969 the *Annals of the New York Academy of Sciences* published a brilliant monograph by Raab entitled "Myocardial Electrolyte Derangement: Pluricausal, So-called Coronary Heart Disease (Dysionic Cardiopathy)," in which the author pointed out the value of magnesium and potassium in all kinds of cardiac disorders. A month later the same journal published another issue "The Pathogenesis and Clinical Significance of Magnesium Deficiency," which discussed the clinical significance of magnesium deficiency in all kinds of disorders, including tachyarrhythmias. Since that time, numerous articles have appeared in the world literature dealing with magnesium and its relationship to the heart, the kidneys, obstetrical and gynecological problems, pediatrics, neonatology, anesthesia and surgery and other fields. All had one thing in common—they were by and large totally ignored by our institutions of learning. Recently, Dr. Mildred Seelig of New York University published a new book *Magnesium Deficiency in the Pathogenesis of Disease—Early Roots of Cardiovascular, Skeletal, and Renal Abnormalities,* which should have been devoured by cardiologists and pediatricians, since it is divided about equally between pediatric and adult heart problems and their relationship to magnesium. I wonder how many of the cardiologists from the Medical Staff Conference are even aware of this book and, if they are, are interested in reading it.

The real tragedy is that sick people seem to get more information from the Rodale Press about their arrhythmias and heart disease than they get from their doctors and their medical schools. *Prevention,* the faddist magazine, has written extensively about the value of dolomite and other magnesium products such as chelated magnesium for heart disease, arrhythmias and hypertension. How much better is it to try a relatively safe nutritional supplement than to give poisons such as beta-blockers, digitalis or lidocaine, or to use invasive techniques with all their inherent complications and problems. Dr. Iseri has treated patients who have ventricular tachycardia and filbrillation with intravenously given magnesium; like others who have tried this method either primarily or at least when the conventional therapy did not work, he has observed some patients leave the hospital alive who otherwise would have died.

THE WESTERN JOURNAL OF MEDICINE has done a great service by calling this essential element to the attention of the medical community. It is hoped that finally some of the great institutions of learning take up this challenge, and begin to study this neglected element. It is certainly time.

BERNARD HORN, MD
El Cerrito, California

Mrs. Laennec and the Stethoscope

TO THE EDITOR: The day René Laennec invented the stethoscope way back in 1819 marked the beginning of today's highly sophisticated cardiology. We all know that. But here is a little known historical sidelight that led up to this important event.

It all started one evening when kindly old Dr. Laennec came home from a long day on the wards of Hospital Beaujou. Almost before he could slip off his frock coat, Mrs. Laennec waggled her finger at him, saying, "Now listen to me, René, this afternoon all the girls at the sewing circle were chattering about how you spend your day patting breasts and putting your ear to the bared bosoms of young maidens. I've never been so embarrassed in all my life!"

"My dear wife," responded the good doctor, "I'm only carrying on the scientific pursuit known as percussion and auscultation." "Pursuit is right," shrilled his spouse, "and you are going to have quit it. You are being too intimate, too personal with these patients!"

The poor doctor spent a troubled night, pitching and tossing, but toward the gray of the morning a brilliant thought struck him: If the deaf used a trumpet to amplify sound why couldn't he do the same in listening to heart sounds? First he constructed a cone-shaped trumpet of parchment. It worked. Next he carved out a wooden horn, tipped with ivory (to be warmer on the skin, of course) and that worked even better. René Théophile Laennec died just five years later, probably totally unaware of the significance of his discovery in the shaping of events that were to follow. He did publish, and leave for posterity, that classic work, "De l'auscultation mediate." History does not record who concluded that if listening with one ear is good, using both ears might double the effectiveness, and thereupon invented the binaural stethoscope. We do know, however, that early in this century, Joseph Bolivar De Lee, by simply taking advantage of the bone conduction of sound, introduced us to the head stethoscope, or fetus-scope. Now we could listen and record the augmented heart sounds of the intrauterine fetus.

Soon the stethoscope became the badge of practicing clinicians. We wore these precious personal tools about our necks on hospital rounds and in the office, and at all other times they were very visible in our suitcoat pockets. As interns and residents we prized and carefully guarded these instruments that enabled us to identify split second sounds and the diastolic murmurs of aortic insufficiency. We learned, too, that although Laennec had drawn the name of his invention from the Greek word for chest *(stethos),* this instrument had uses far beyond ausculation of the heart and lungs. When applied to the abdomen we could hear characteristic tinkles and peristaltic rushes; a bruit discovered in the flank, in the neck or in the extremities might lead us to a brilliant diagnosis. That was indeed the golden era of the stethoscope.

During the fateful 1960's we began to notice an ominous change. Now nurses were brazenly acquiring stethoscopes, and using them. Student nurses and emergency medical technicians had the audacity to drape them about their necks, instantly becoming junior doctors. Chiropractors and naturopaths were using them. And, alas, blood pressures were being taken in shopping malls and mail order companies advertised stethoscopes and sphygmomanometers for home use. A crowning insult was the use of this sacred instrument by auto mechanics to detect a *miss* in engine timing.